



Fig. 1

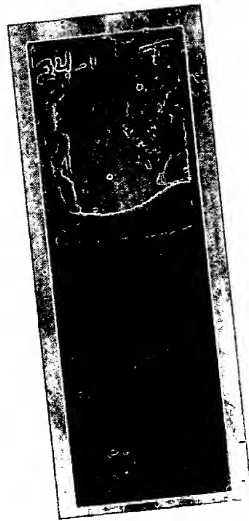


Fig. 2



Fig. 3A

Fig. 3B



Fig. 4

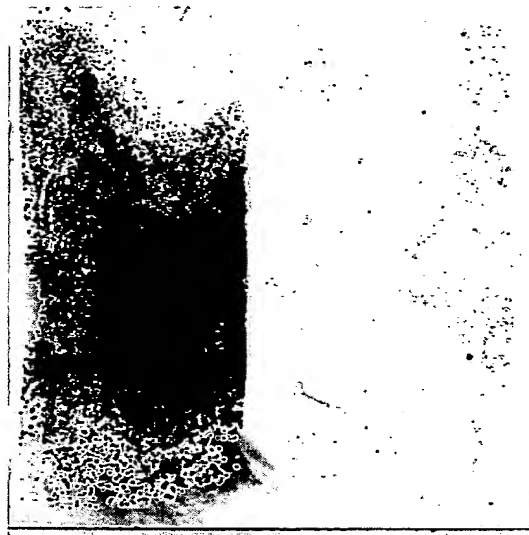


Fig. 5A

Fig. 5B

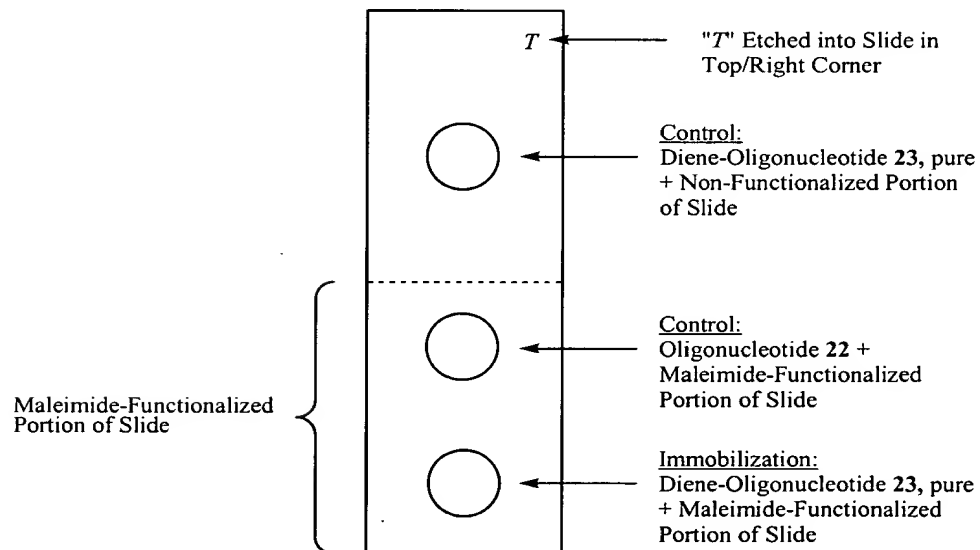


Fig. 6

Placement of Solutions:

Control:
 Diene-Oligonucleotide 23, pure +
 Non-Functionalized Portion of Slide

Control:
 Oligonucleotide 22 +
 Maleimide-Functionalized Portion of Slide

DA Surface Immobilization:
 Diene-Oligonucleotide 23, pure +
 Maleimide-Functionalized Portion of Slide

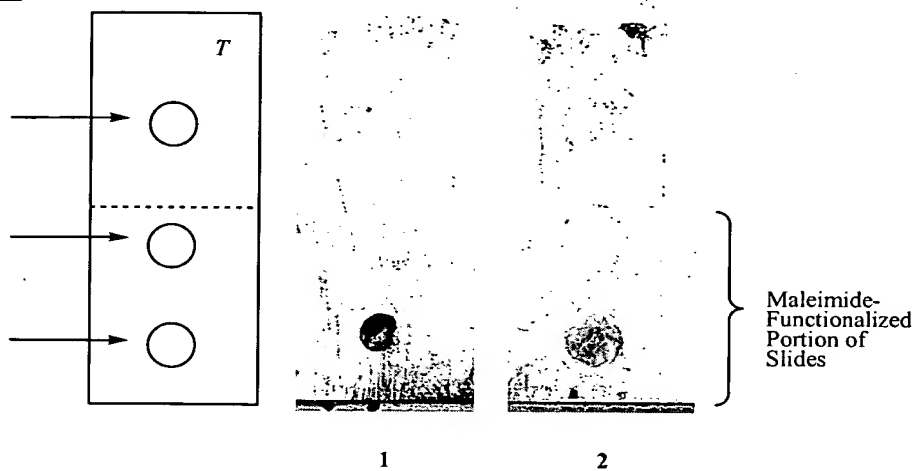


Fig. 7

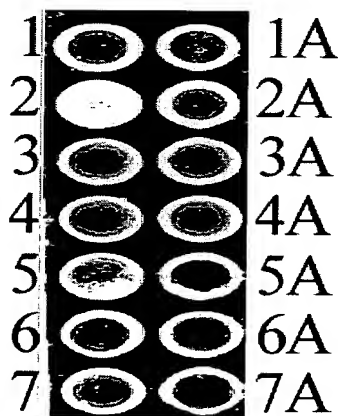


Fig. 8

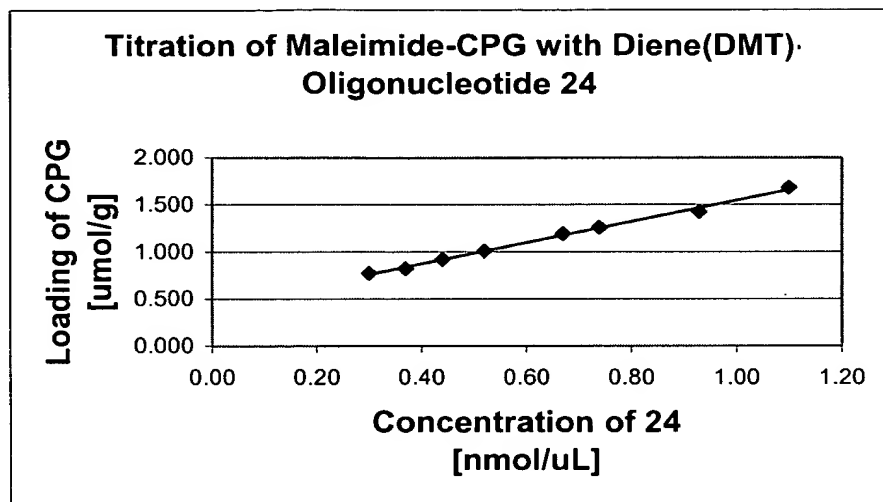


Fig. 9

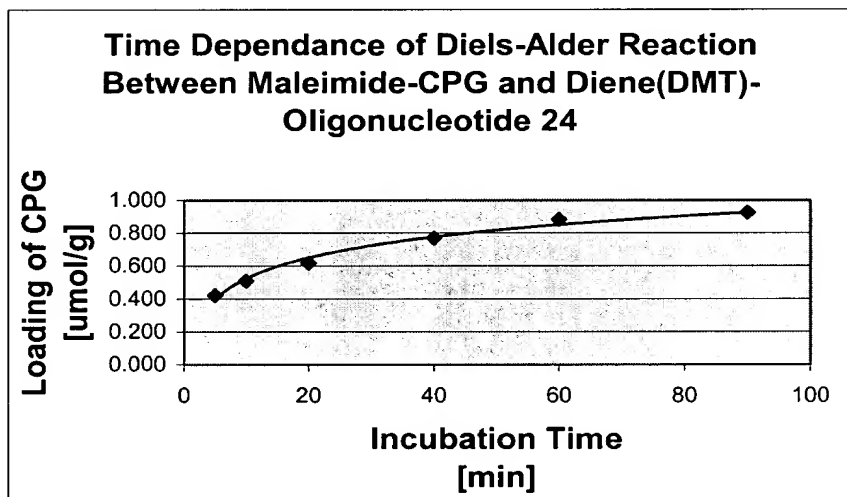


Fig. 10

Placement of Solutions:

Control:
 Maleimide-Oligonucleotide
 26 + Non-Functionalized
 Portion of Slide

Control:
 Oligonucleotide 22 +
 Diene-Functionalized
 Portion of Slide

DA Surface Immobilization:
 Maleimide-Oligonucleotide
 26 + Diene-Functionalized
 Portion of Slide

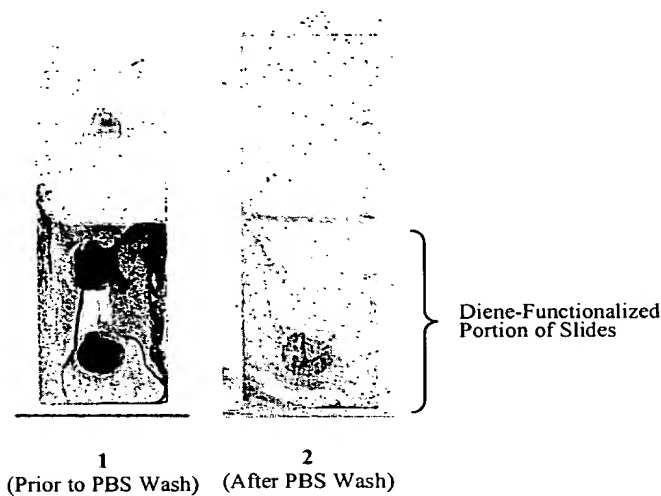
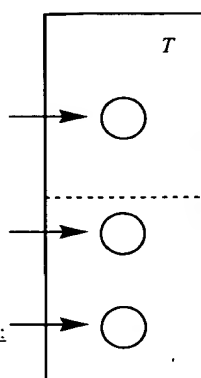


Fig. 11

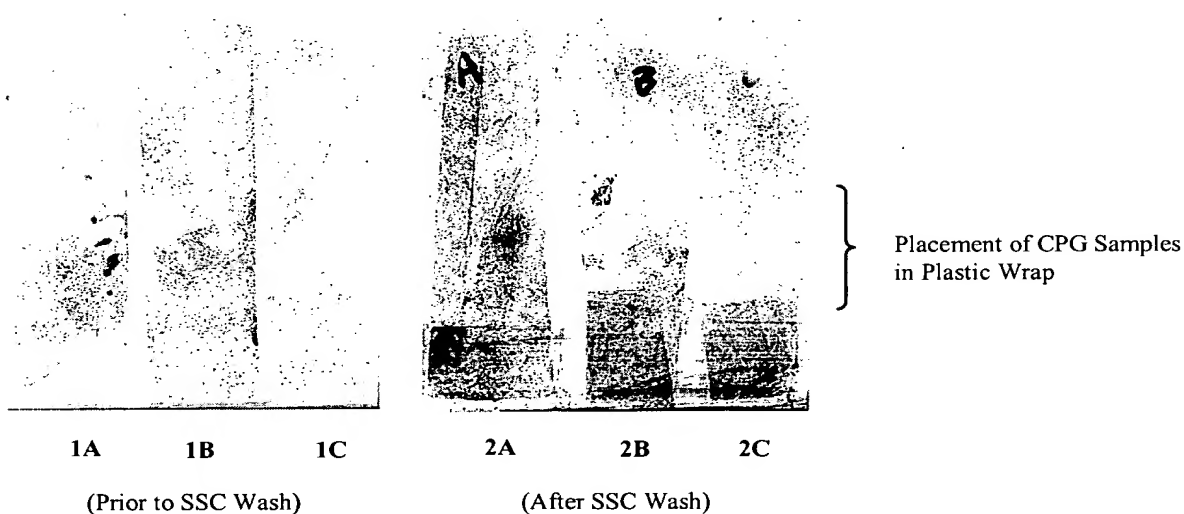
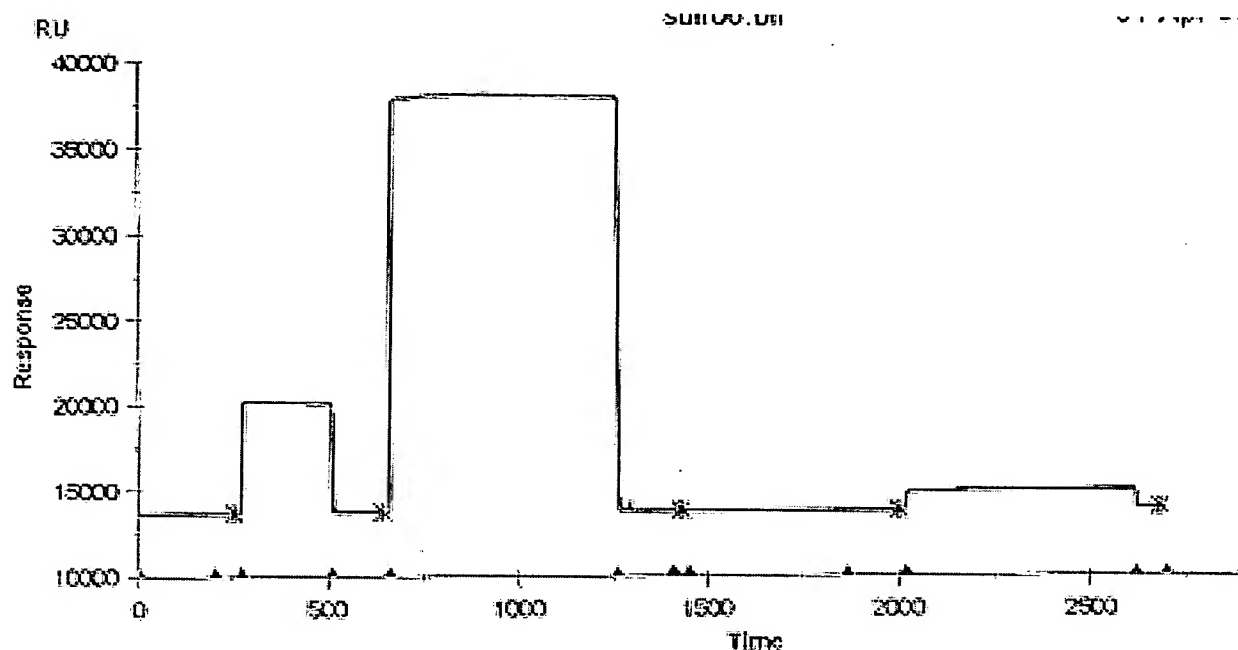


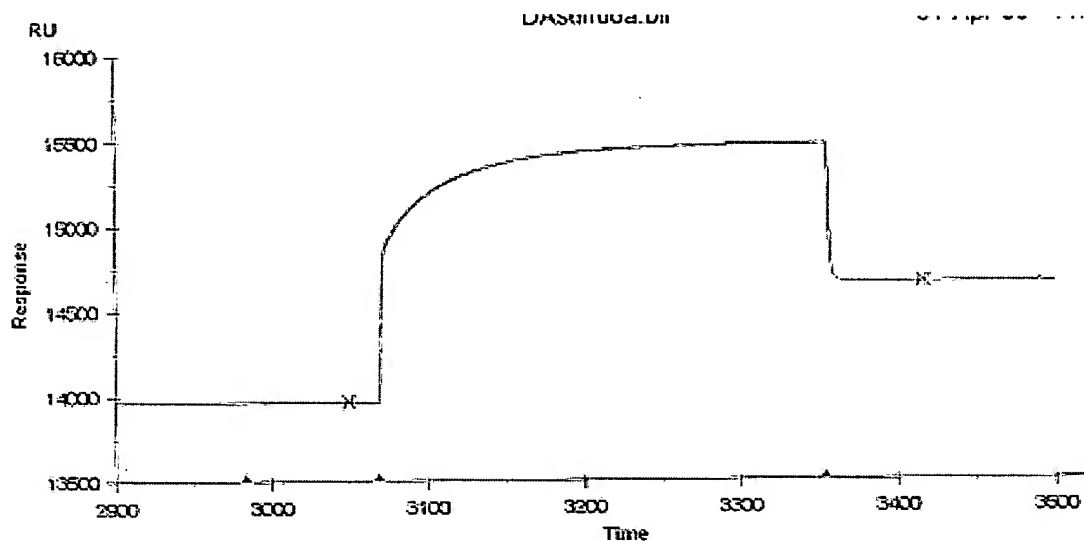
Fig. 12A

Fig. 12B



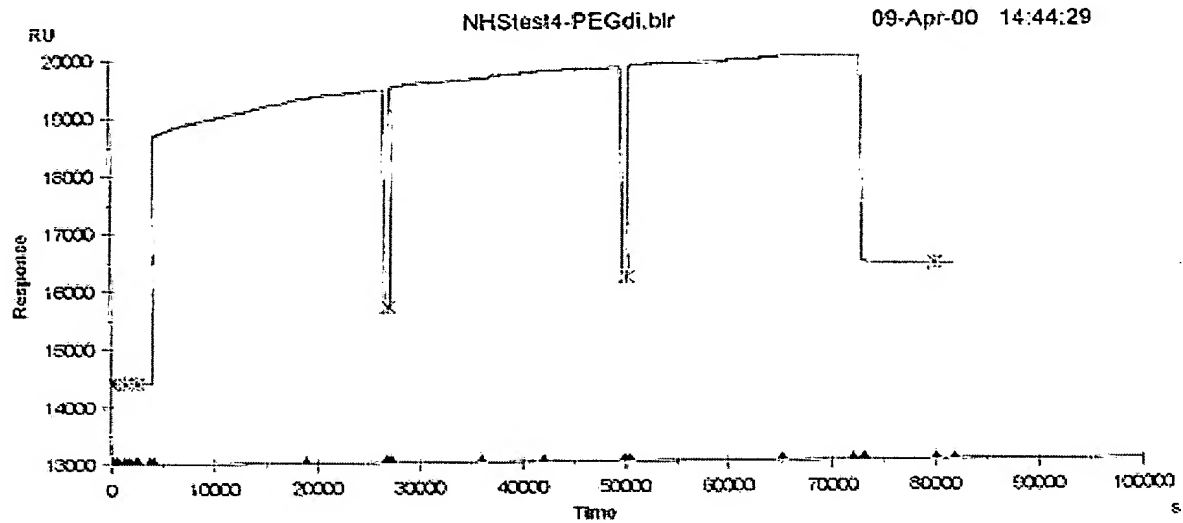
Fc	APROG	Time	AbsResp	Slope	Baseline	RelResp	Id
1	immobilization	252.5	13654.6	0.08	Yes	0	baseline
2	immobilization	252.6	13709.9	0.04	Yes	0	baseline
3	immobilization	252.7	13751.5	-0.04	Yes	0	baseline
4	immobilization	252.8	13736.4	0.12	Yes	0	baseline
1	immobilization	642.5	13721.9	0.00	Yes	67.3	NHS
2	immobilization	642.6	13770.9	0.07	Yes	61.0	NHS
3	immobilization	642.7	13813.7	-0.04	Yes	62.2	NHS
4	immobilization	642.8	13799.1	-0.08	Yes	62.7	NHS
1	immobilization	1430.5	13786.3	-0.03	Yes	64.4	ethylenediamine
2	immobilization	1430.6	13847.8	0.01	Yes	76.9	ethylenediamine
3	immobilization	1430.7	13894.7	-0.01	Yes	81.0	ethylenediamine
4	immobilization	1430.8	13862.8	-0.01	Yes	83.7	ethylenediamine
1	immobilization	2001.5	13782.4	0.05	Yes	-4.0	ethylenediamene
2	immobilization	2001.6	13842.8	0.03	Yes	-5.1	ethylenediamene
3	immobilization	2001.7	13888.6	-0.02	Yes	-6.1	ethylenediamene
4	immobilization	2001.8	13876.1	0.01	Yes	-6.7	ethylenediamene
1	immobilization	2681.5	13940.8	1.63	No	156.4	maleimide_level
2	immobilization	2681.6	13994.6	0.90	No	151.8	maleimide_level
3	immobilization	2681.7	14042.9	0.25	No	154.2	maleimide_level
4	immobilization	2681.8	14040.0	-0.33	No	164.0	maleimide_level

Fig. 13



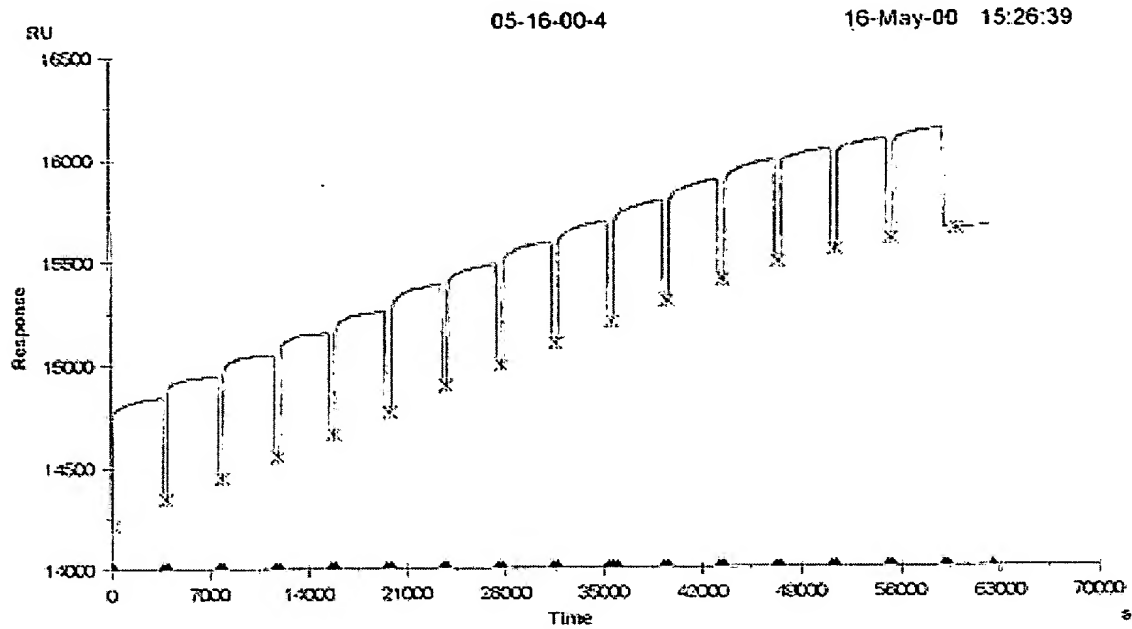
Fc	Time	AbsResp	Slope	Baseline	RelResp	Id
1	279.5	13922.6	-0.18	Yes	0	maleimide baseline
1	3416.5	14660.0	-0.06	No	737.4	5000-PEG-SH pH 6.5 added

Fig. 14



Fc	Time	AbsResp	Slope	Baseline	RelResp	Id
4	100.5	14414.7	-0.01	Yes	0	maleimide baseline
4	448.5	14413.4	-0.01	No	-1.3	500nM 22-070diene pH 6.5
4	1388.5	14409.8	-0.01	No	-4.9	5500 nM 22070 10 uL/min
4	2600.5	14407.3	-0.01	No	-7.4	5 uM 22-070-diene pH 6.5
4	26984.5	15697.7	-0.03	No	1283.0	7.5 mM 5K-diene pH 6.5 DA1 added
4	50200.5	16181.7	0.22	No	1767.0	7.5 mM 5K-diene pH 6.5 DA2 added
4	80000.5	16395.9	-0.01	No	1981.2	7.5 mM 5K-diene pH 6.5 DA3 added

Fig. 15



Fc	Time	AbsResp	Slope	Baseline	RelResp	Id
4	120.5	14211.3	0.06	Yes	0	maleimide baseline
4	3960.5	14343.4	-0.18	No	132.1	5K-PEG-Anth 1 hr
4	7960.5	14447.3	-0.04	No	235.9	5K-PEG-Anth 2 hr
4	11876.5	14551.6	-0.34	No	340.3	5K-PEG-Anth 3 hr
4	15826.5	14657.0	0.77	No	445.6	5K-PEG-Anth 4 hr
4	19810.5	14765.0	-0.09	No	553.7	5K-PEG-Anth 5 hr
4	23856.5	14894.7	0.00	No	683.4	5K-PEG-Anth 6 hr
4	27806.5	14992.8	-0.02	No	781.5	5K-PEG-Anth 7 hr
4	31730.5	15098.7	-0.05	No	887.4	5K-PEG-Anth 8 hr
4	35690.5	15198.9	-0.01	No	987.5	5K-PEG-Anth 9 hr
4	39614.5	15301.6	-0.22	No	1090.3	5K-PEG-Anth 10 hr
4	43612.5	15402.8	-0.16	No	1191.5	5K-PEG-Anth 11 hr
4	47572.5	15492.6	0.03	No	1281.3	5K-PEG-Anth 12 hr
4	51572.5	15550.1	0.04	No	1338.7	5K-PEG-Anth 13 hr
4	55500.5	15599.5	0.04	No	1388.2	5K-PEG-Anth 14 hr
4	60070.5	15647.1	-0.01	No	1435.8	5K-PEG-Anth 15 hr

Fig. 16

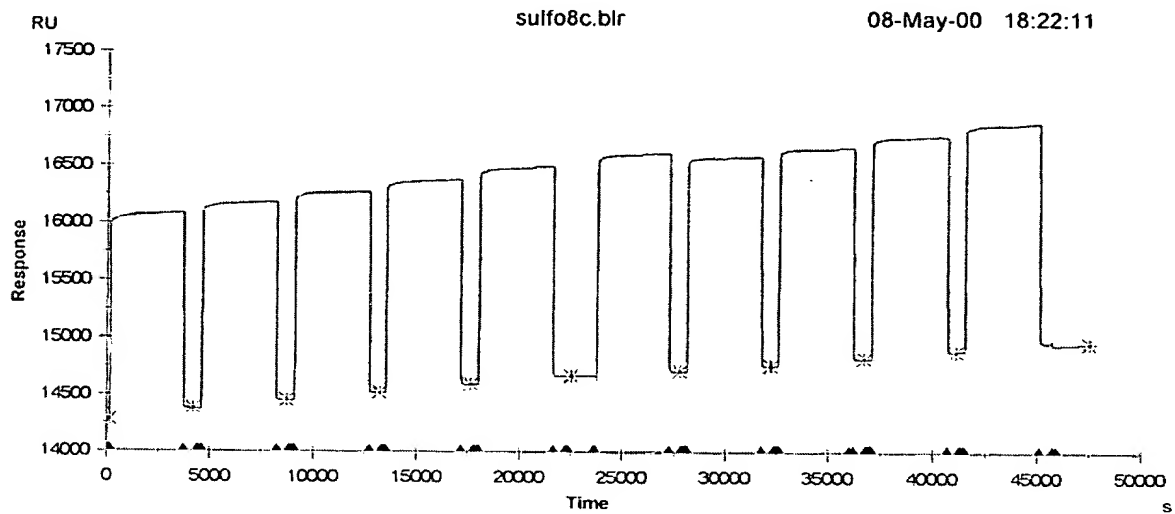


Fig. 17

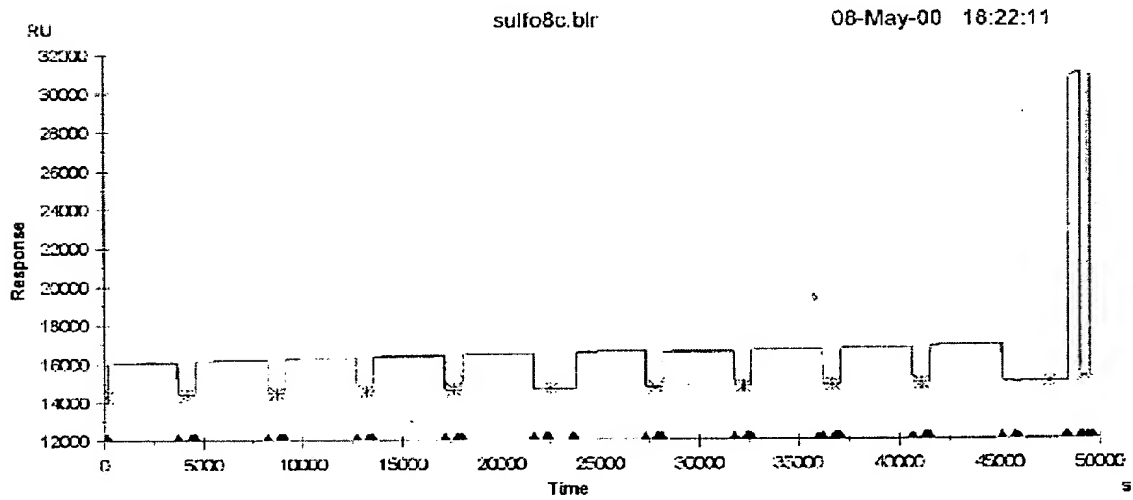


Fig. 18

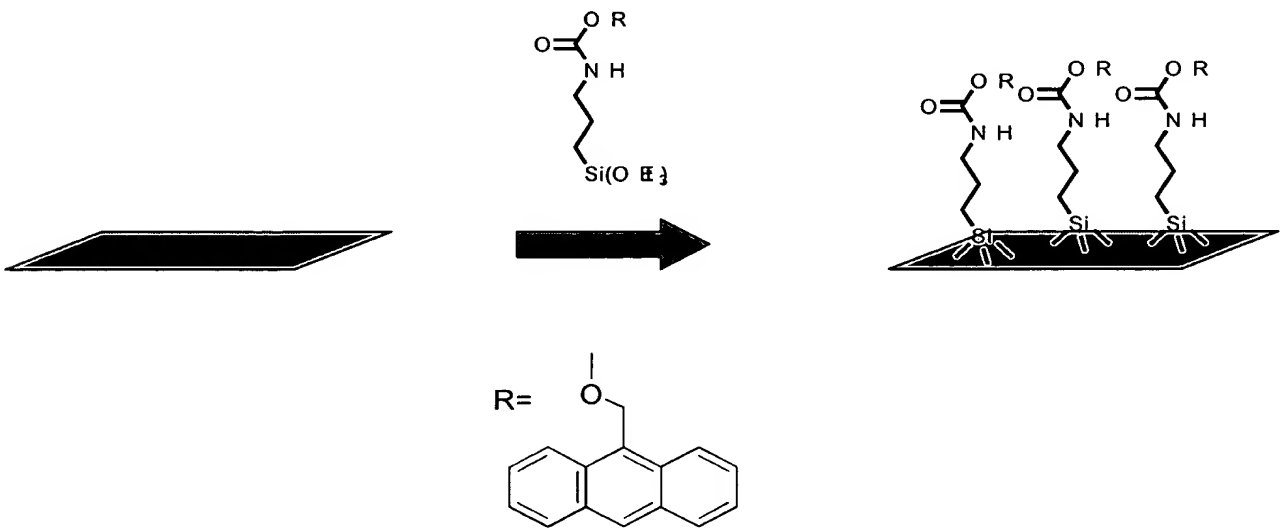


Fig. 19